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| cagaaggta gtgctgaag   | 20  |  |
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| acctgcttct tgctggaggt c   | 21  |  |
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| aaggccatgg cggggcccgga gcgcgtggggc cccctgtcc tgtgcctgct gcaggccgt         | 60  |  |
| ccagggaggc cccgtctggc ccctccccag aatgtgacgc tgctctccca gaacttcagc         | 120 |  |
| gtgtacctga catggctcc cagggcttggc aaccccccagg atgtgaccta ttttgtggcc        | 180 |  |
| atcagagctc tcccaccctgt agacggtggc gcgaagtggaa agagtgtgcg ggaaccaagg       | 240 |  |
| agctgctatg ttctatgtatg tgcctgaaga aacaggacat gtacaacaag ttcaaggggac       | 300 |  |
| gcgtgcggac ggtttctccc agctccaagt cccctgggt ggagtccgaa tacctggatt          | 360 |  |
| acccttttga agtggagccg gccccacctg tccctgggtgct cacccagacg gaggagatc        | 420 |  |
| ctgagtgccatgccatgg cggggcccgga gcgcgtggggc cccctgtcc tgtgcctgct gcaggccgt | 480 |  |

|                       |            |             |             |             |      |
|-----------------------|------------|-------------|-------------|-------------|------|
| gaggtggcat tctggaagga | gggggcccga | aacaagaccc  | tattccagt   | cactccccat  | 540  |
| ggccagccag            | tccagatcac | tctccagcca  | gctgccagcg  | aacaccactg  | 600  |
| agaaccatct            | acacgttcag | tgtccgaaa   | tacagcaagt  | tctctaagcc  | 660  |
| ttgctggagg            | ttccagaagc | caactgggct  | ttcctggtgc  | tgccatcgct  | 720  |
| ctgttagtaa            | ttgccgcagg | gggtgtgatc  | tgaagaccc   | tcatgggaa   | 780  |
| cagcgggcaa            | agatgccacg | ggccctggac  | tttctggac   | acacacaccc  | 840  |
| ttcagccca             | gcagaccaga | gtccgtaat   | gacttgtcc   | tctgtccccaa | 900  |
| accagagggg            | tcaggccgac | gcctcgagtc  | agggcccccag | ccacccaaca  | 960  |
| aagaaggacc            | ttgcagagga | cgaagaggag  | gaggatgagg  | aggacacaga  | 1020 |
| agcttccagc            | cctacattga | accacatttct | ttcctgggac  | aagagcacca  | 1080 |
| cactcggagg            | ctggtggggt | ggactcaggg  | aggcccaggg  | ctcctctgg   | 1140 |
| ggctccctcg            | cttgggattc | ttcagacaga  | agctgggcca  | gcactgtgga  | 1200 |
| gacagggctg            | ggtcctctgg | ctattggct   | gagaaggggc  | caggccaagg  | 1260 |
| gatgggcacc            | aagaatctct | cccaccacct  | gaattctcca  | aggactcggg  | 1320 |
| gagctcccag            | aagataacct | ctcctcctgg  | gccacctggg  | gcaccttacc  | 1380 |
| aatctggtcc            | ctgggggacc | cccagttct   | cttcagacac  | tgaccttctg  | 1440 |
| agccctgagg            | aggaagagga | ggcgagggaa  | tcagaaattg  | aggacagcga  | 1500 |
| tggggggctg            | agagcaccca | gaggaccgag  | gacaggggccc | ggacattggg  | 1560 |
| gccaggtgag            | ctgtcccccc | acatcccacc  | aatctgtatg  |             | 1600 |

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<212> PRT

<213> Homo sapiens

<220>

<400>8

Met Ala Gly Pro Glu Arg Trp Gly Pro Leu Leu Leu Cys Leu Leu Gln

1 5 10 15

Ala Ala Pro Gly Arg Pro Arg Leu Ala Pro Pro Gln Asn Val Thr Leu

20 25 30

Leu Ser Gln Asn Phe Ser Val Tyr Leu Thr Trp Leu Pro Gly Leu Gly

35 40 45

Asn Pro Gln Asp Val Thr Tyr Phe Val Ala Tyr Gln Ser Ser Pro Thr

50 55 60

Arg Arg Arg Trp Arg Glu Val Glu Glu Cys Ala Gly Thr Lys Glu Leu

65 70 75 80

Leu Cys Ser Met Met Cys Leu Lys Lys Gln Asp Leu Tyr Asn Lys Phe

|   |     |     |     |
|---|-----|-----|-----|
| 85  | 90  | 95  |     |
| Lys Gly Arg Val Arg Thr Val Ser Pro Ser Ser Lys Ser Pro Trp Val |     |     |     |
| 100   | 105 | 110 |     |
| Glu Ser Glu Tyr Leu Asp Tyr Leu Phe Glu Val Glu Pro Ala Pro Pro |     |     |     |
| 115   | 120 | 125 |     |
| Val Leu Val Leu Thr Gln Thr Glu Glu Ile Leu Ser Ala Asn Ala Thr |     |     |     |
| 130   | 135 | 140 |     |
| Tyr Gln Leu Pro Pro Cys Met Pro Pro Leu Asp Leu Lys Tyr Glu Val |     |     |     |
| 145   | 150 | 155 | 160 |
| Ala Phe Trp Lys Glu Gly Ala Gly Asn Lys Thr Leu Phe Pro Val Thr |     |     |     |
| 165   | 170 | 175 |     |
| Pro His Val Thr Pro His Gly Gln Pro Val Gln Ile Thr Leu Gln Pro |     |     |     |
| 180   | 185 | 190 |     |
| Ala Ala Ser Glu His His Cys Leu Ser Ala Arg Thr Ile Tyr Thr Phe |     |     |     |
| 195   | 200 | 205 |     |
| Ser Val Pro Lys Tyr Ser Lys Phe Ser Lys Pro Thr Cys Phe Leu Leu |     |     |     |
| 210   | 215 | 220 |     |
| Glu Val Pro Glu Ala Asn Trp Ala Phe Leu Val Leu Pro Ser Leu Leu |     |     |     |
| 225   | 230 | 235 | 240 |
| Ile Leu Leu Leu Val Ile Ala Ala Gly Gly Val Ile Trp Lys Thr Leu |     |     |     |
| 245   | 250 | 255 |     |
| Met Gly Asn Pro Trp Phe Gln Arg Ala Lys Met Pro Arg Ala Leu Asp |     |     |     |
| 260   | 265 | 270 |     |
| Phe Ser Gly His Thr Thr His Pro Val Ala Thr Phe Gln Pro Ser Arg |     |     |     |
| 275   | 280 | 285 |     |
| Pro Glu Ser Val Asn Asp Leu Phe Leu Cys Pro Gln Lys Glu Leu Thr |     |     |     |
| 290   | 295 | 300 |     |
| Arg Gly Val Arg Pro Thr Pro Arg Val Arg Pro Ala Thr Gln Gln Thr |     |     |     |
| 305   | 310 | 315 | 320 |
| Arg Trp Lys Lys Asp Leu Ala Glu Asp Glu Glu Glu Asp Thr Glu     |     |     |     |
| 325   | 330 | 335 |     |
| Asp Gly Val Ser Phe Gln Pro Tyr Ile Glu Pro Pro Ser Phe Leu Gly |     |     |     |
| 340   | 345 | 350 |     |
| Gln Glu His Gln Ala Pro Gly His Ser Glu Ala Gly Gly Val Asp Ser |     |     |     |
| 355   | 360 | 365 |     |
| Gly Arg Pro Arg Ala Pro Leu Val Pro Ser Glu Gly Ser Ser Ala Trp |     |     |     |
| 370   | 375 | 380 |     |
| Asp Ser Ser Asp Arg Ser Trp Ala Ser Thr Val Asp Ser Ser Trp Asp |     |     |     |
| 385   | 390 | 395 | 400 |

Arg Ala Gly Ser Ser Gly Tyr Leu Ala Glu Lys Gly Pro Gly Gln Gly  
                  405                 410                 415  
 Pro Gly Gly Asp Gly His Gln Glu Ser Leu Pro Pro Pro Glu Phe Ser  
                  420                 425                 430  
 Lys Asp Ser Gly Phe Leu Glu Glu Leu Pro Glu Asp Asn Leu Ser Ser  
                  435                 440                 445  
 Trp Ala Thr Trp Gly Thr Leu Pro Pro Glu Pro Pro Asn Leu Val Pro  
                  450                 455                 460  
 Gly Gly Pro Pro Val Ser Leu Gln Thr Leu Thr Phe Cys Trp Glu Ser  
                  465                 470                 475                 480  
 Ser Pro Glu Glu Glu Glu Ala Arg Glu Ser Glu Ile Glu Asp Ser  
                  485                 490                 495  
 Asp Ala Gly Ser Trp Gly Ala Glu Ser Thr Gln Arg Thr Glu Asp Arg  
                  500                 505                 510  
 Gly Arg Thr Leu Gly His Tyr Met Ala Arg  
                  515                 520

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| ccagggaggc cccgtctggc ccctcccgag aatgtgacgc tgctctccca gaacttcagc    | 120 |
| gtgtacctga catggctccc agggctggc aaccccccagg atgtgaccta ttttgtggcc    | 180 |
| tatcagagct ctcccaccccg tagacggtgg cgcaagtgaa aagagtgtgc ggaaaccaag   | 240 |
| gagctgctat gttctatgtat gtgcctgaag aaacaggacc tgcataacaa gttcaaggga   | 300 |
| cgcgtgcgga cggtttcctcc cagctccaaag tccccctggg tggagtcgaa atacctggat  | 360 |
| taccttttg aagtggagcc ggccccaccc tgcctgggc tcacccagac ggaggagatc      | 420 |
| ctgagtgccca atgccacgta ccagctgccc ccctgcatgc ccccaactggaa tctgaagtat | 480 |
| gagggtggcat tctggaagga gggggccgga aacaagaccc tatttccagt cactcccat    | 540 |
| ggccagccag tccagatcac tctccagccca gctgccagcg aacaccactg cctcagtggcc  | 600 |
| agaaccatct acacgttcag tgcggaaa tacagcaagt tctctaagcc cacctgcttc      | 660 |
| ttgctggagg tcccaggact ttctggaca cacacaccct gtggcaacctt tcagcccg      | 720 |
| cagaccagag tccgtgaatg acttgttccct ctgtcccaa aaggaactga ccagaggggt    | 780 |
| caggccgacg cctcgagtca gggccccagc cacccaaacag acaagatgga agaaggacct   | 840 |

|   |      |
|---|------|
| tgcaaggagac gaagaggagg aggatgagga ggacacagaa gatggcgtca gcttccagcc  | 900  |
| ctacattgaa ccacatttt tcctggggca agagcaccag gctccaggc actcggaggc     | 960  |
| tggtgggtg gactcaggga ggcccaggc tcctctggc ccaagcgaag gctcctctgc      | 1020 |
| ttgggattct tcagacagaa gctgggcccag cactgtggac tcctctggg acagggctgg   | 1080 |
| gtcctctggc tatttggctg agaagggcc aggccaagg ccgggtgggg atgggcacca     | 1140 |
| agaatctctc ccaccacctg aattctcaa ggactcgggt ttcccttggaaag agctcccaga | 1200 |
| agataacctc tcctcttggg ccacctgggg caccttacca ccggagccga atctggtccc   | 1260 |
| tgggggaccc ccagtttctc ttccatcact gacccctgc tggaaagca gccctgagga     | 1320 |
| ggaagaggag gcgaggaaat cagaaattga ggacagcgat gcgggcagct gggggctga    | 1380 |
| gagcacccag aggaccgagg acaggggccc gacattgggg cattacatgg ccaggtgagc   | 1440 |
| tgtcccccgca catcccacccg aatctgtat                                   | 1469 |

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| 1   | 5   | 10  | 15 |
| Ala Ala Pro Gly Arg Pro Arg Leu Ala Pro Pro Gln Asn Val Thr Leu |     |     |    |
| 20  | 25  | 30  |    |
| Leu Ser Gln Asn Phe Ser Val Tyr Leu Thr Trp Leu Pro Gly Leu Gly |     |     |    |
| 35  | 40  | 45  |    |
| Asn Pro Gln Asp Val Thr Tyr Phe Val Ala Tyr Gln Ser Ser Pro Thr |     |     |    |
| 50  | 55  | 60  |    |
| Arg Arg Arg Trp Arg Glu Val Glu Glu Cys Ala Gly Thr Lys Glu Leu |     |     |    |
| 65  | 70  | 75  | 80 |
| Leu Cys Ser Met Met Cys Leu Lys Lys Gln Asp Leu Tyr Asn Lys Phe |     |     |    |
| 85  | 90  | 95  |    |
| Lys Gly Arg Val Arg Thr Val Ser Pro Ser Ser Lys Ser Pro Trp Val |     |     |    |
| 100   | 105 | 110 |    |
| Glu Ser Glu Tyr Leu Asp Tyr Leu Phe Glu Val Glu Pro Ala Pro Pro |     |     |    |
| 115   | 120 | 125 |    |
| Val Leu Val Leu Thr Gln Thr Glu Glu Ile Leu Ser Ala Asn Ala Thr |     |     |    |

130 135 140  
Tyr Gln Leu Pro Pro Cys Met Pro Pro Leu Asp Leu Lys Tyr Glu Val  
145 150 155 160  
Ala Phe Trp Lys Glu Gly Ala Gly Asn Lys Thr Leu Phe Pro Val Thr  
165 170 175  
Pro His Gly Gln Pro Val Gln Ile Thr Leu Gln Pro Ala Ala Ser Glu  
180 185 190  
His His Cys Leu Ser Ala Arg Thr Ile Tyr Thr Phe Ser Val Pro Lys  
195 200 205  
Tyr Ser Lys Phe Ser Lys Pro Thr Cys Phe Leu Leu Glu Val Pro Gly  
210 215 220  
Leu Phe Trp Thr His Thr Pro Cys Gly Asn Leu Ser Ala Gln Gln Thr  
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Arg Val Arg Glu

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